

AMENDMENTS TO THE CLAIMS

1. (Currently amended) An ~~vaccine-immunogenic~~ composition suitable for administration to a vertebrate host which comprises:

(a) a polynucleotide ~~vaccine-immunogenic~~ component comprising at least one polynucleotide encoding at least one antigen, such that introduction of said ~~polynucleotide~~polynucleotide ~~vaccine-immunogenic~~ component into said vertebrate host results in expression of a biologically effective amount of said antigen or antigens so as to induce a prophylactic or therapeutic immune response;

(b) a protein antigen ~~vaccine-immunogenic~~ component comprising at least one protein antigen selected from the group consisting of model protein antigens and ~~vaccine-immunogenic~~ protein antigens; and

(c) a mineral-based, negatively charged adjuvant,
~~wherein said composition produced by a method comprising preincubating or subsequently mixing~~ said mineral-based negatively charged adjuvant ~~is preincubated or subsequently mixed~~ with said at least one protein antigen ~~vaccine-immunogenic~~ component prior to formulating with said polynucleotide ~~vaccine-immunogenic~~ component.

2. (Currently amended) The ~~vaccine-immunogenic~~ composition according to claim 1 wherein said mineral-based negatively charged adjuvant is an aluminum salt or a calcium salt.

3. (Currently amended) The ~~vaccine-immunogenic~~ composition according to claim 2 wherein said aluminum or calcium salt is selected from the group consisting of aluminum phosphate, aluminum hydroxyphosphate, phosphate-treated aluminum hydroxide, calcium phosphate, calcium hydroxyphosphate, and phosphate-treated calcium hydroxide.

4. (Currently amended) The ~~vaccine-immunogenic~~ composition according to claim 1 wherein said group of model protein antigens range from acidic isoelectric point (IEP) proteins to alkaline IEP proteins.

5. (Currently amended) The ~~vaccine-immunogenic~~ composition according to claim 1 wherein said group of ~~vaccine-immunogenic~~ protein antigens ~~comprises-is selected from the group consisting of~~ a surface protein or a core protein of Hepatitis B virus (HBV), a de-toxified toxin from the bacteria *Clostridium tetani* (a tetanus toxoid), a de-toxified toxin from the bacteria

Clostridium botulinus (a botulinus toxoid), and/or a de-toxified toxin from the bacteria *Corynebacterium diphtheriae* (a diphtheria toxoid).

6. (Currently amended) The ~~vaccine-immunogenic~~ composition according to claim 1 wherein said group of ~~vaccine-immunogenic~~ protein antigens comprises protein antigens derived from inactivated poliovirus.

7. (Canceled)

8. (Currently amended) A kit comprising an ~~vaccine-immunogenic~~ composition as defined in claim 1 in a unit dose form for administration to a vertebrate recipient.

9. (Currently amended) A method of ~~using preincubating or subsequently mixing~~ a mineral-based, negatively charged adjuvant as a component in a combined DNA/protein-based ~~vaccine-immunogenic~~ composition as defined in claim 1, comprising preincubating or subsequently mixing the mineral-based, negatively charged adjuvant with said at least one protein antigen ~~vaccine-immunogenic~~ component prior to being formulated with said polynucleotide ~~vaccine-immunogenic~~ component.

10. (Currently amended) An ~~vaccine-immunogenic~~ composition suitable for administration to a human host which comprises:

(a) a polynucleotide ~~vaccine-immunogenic~~ component comprising at least one polynucleotide encoding at least one antigen, such that introduction of said ~~formulation polynucleotide immunogenic component~~ into said ~~vertebrate-human~~ host results in expression of a biologically effective amount of said antigen or antigens so as to induce a prophylactic or therapeutic immune response;

(b) a protein antigen ~~vaccine-immunogenic~~ component comprising at least one protein antigen selected from the group consisting of model protein antigens and ~~vaccine immunogenic~~ protein antigens; and

(c) a mineral-based, negatively charged adjuvant, wherein said mineral-based negatively charged adjuvant is preincubated or subsequently mixed with said at least one protein antigen ~~vaccine-immunogenic~~ component prior to formulating with said polynucleotide ~~vaccine-immunogenic~~ component.

11. (Currently amended) A kit comprising an ~~vaccine-immunogenic~~ composition as defined in claim 1 in a unit dose form for administration to a human recipient.

12. (Currently amended) A method for preparing ~~athe~~ vaccineimmunogenic composition according to claim 1, wherein a mineral-based negatively charged adjuvant is preincubated or subsequently mixed with at least one protein antigen ~~vaccineimmunogenic~~ component prior to formulating with a polynucleotide ~~vaccineimmunogenic~~ component.